



深圳星源创科技有限公司

Shen Zhen Xing Yuan Chuang Technology Co., Ltd

规格承认书
Approval Sheet

客户名称 Customer	昱科	日期 Data	2024/05/30
产品名称 Product	WiFi副天线	客户机型 Models	E270
料号 P/N	F667E-14RG-255	客户料号 Customer P/N	31TX00E27025500
规格描述 Specifications	黑色FPC; RF0.81四代端子灰色同轴线; L=255mm		

供应商承认签印 Vender Approved By	客户承认签印 Customer Approved By
	
Checked By:	Checked By:
Audit By:	Audit By:
Approval By:	Approval By:

文件修订履历表					
版本 Version	修订内容 Revise The Content	修订人 Revused	核准 Approval	修订日期 Date	备注 Note

地址：深圳市宝安区福永镇福海街道塘尾股份商务大厦1506

Address:1506, Tangwei Business Building, Fuhai Street, Fuyong Town, Baoan District, Shenzhen

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Specification

1.1 Electrical Properties

Characteristics	Specifications
Working Band	2.4GWiFi; 5GWiFi
Antenna From	PIFA
Impedance	50 Ω
Polarization	Linear
Peak Effi	41%@2.4G; 40%@5G
Peak Gain	2.5dBi@2.4G; 2.8dBi@5G

1.2 Physical Properties

Characteristics	Specifications
Operating Temp	-10°C~+60°C
Storage Temp	-10°C~+70°C
Humidity	10~95%RH

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WiFi Ant Test Information

Frequency	2. 4G (2402~2483) Mhz	5G (5150~5850) Mhz
Module information		
Driver version information		

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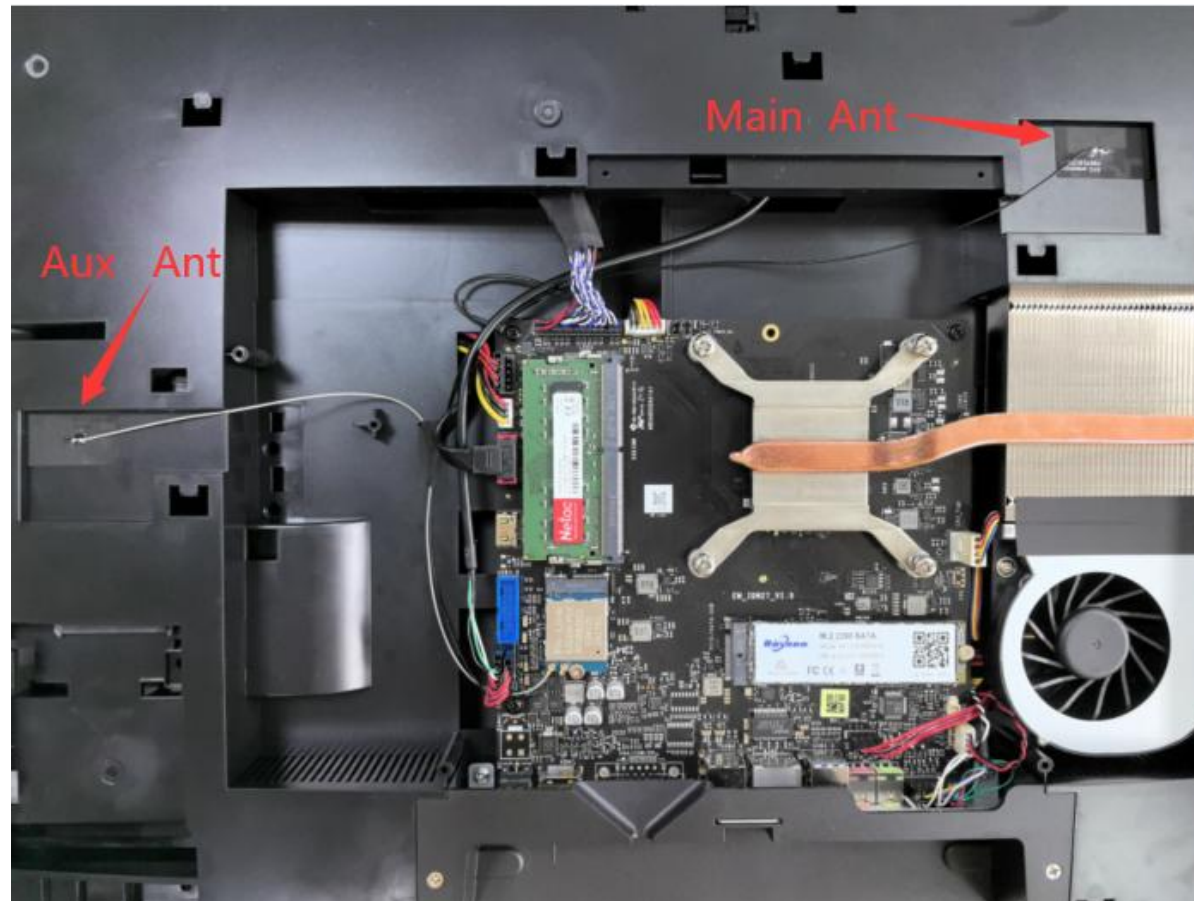
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Antenna Placement



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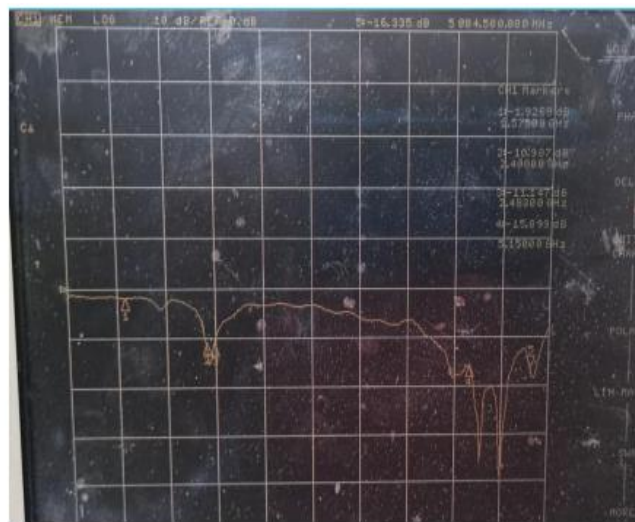
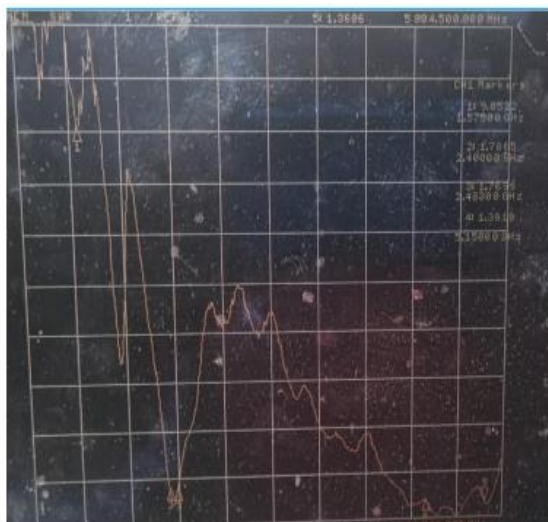
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Test Data

S11 Parameter-VSWR



Frequency (MHZ)	2400	2483	5150	5500	5850
VSWR	1.78	1.76	1.39		1.36
Return Loss (DB)	-10.98	-11.14	-15.96		-16.33

Efficiency Table(2.4G)

Passive Test For WIFI2.4												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	40.45	-2.97	1.75	-0.4	14.844	25.601	1.75	-15.22	4.72	30	45.78	46.01
2410	37.33	-3.25	1.58	-0.57	13.716	23.614	1.58	-15.89	4.83	30	46.01	46.29
2420	40.22	-2.99	1.93	-0.22	14.834	25.383	1.93	-17.39	4.93	30	45.73	46
2430	40.86	-2.94	2.17	0.02	15.308	25.55	2.17	-17.95	5.1	30	46.01	46.36
2440	42.26	-2.82	2.59	0.44	16.178	26.085	2.59	-17.64	5.41	30	46.12	46.48
2450	40.59	-2.96	2.49	0.34	15.971	24.618	2.49	-16.68	5.45	30	46.12	46.54
2460	37.29	-3.25	2.04	-0.11	15.002	22.286	2.04	-15.56	5.3	30	46.14	46.52
2470	40.09	-3	2.16	0.01	16.303	23.791	2.16	-16.47	5.16	0	46.4	46.8
2480	41.62	-2.87	2.43	0.28	16.861	24.755	2.43	-17.16	5.3	0	46.26	46.64
2490	41.01	-2.92	2.43	0.28	16.393	24.615	2.43	-17.19	5.35	0	46.51	46.91
2500	37.04	-3.28	2.22	0.07	14.614	22.429	2.22	-16.55	5.49	0	46.47	46.86

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Efficiency Table(5G)

Passive Test For WIFI5G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
5150	25.99	-5.85	2.1	-0.05	10.214	15.777	2.1	-22.97	7.95	30	49.82	49.4
5170	25.55	-5.93	1.58	-0.57	10.213	15.336	1.58	-20.14	7.51	30	50.13	49.77
5190	26.71	-5.73	1.44	-0.71	10.857	15.852	1.44	-18.51	7.17	30	50.42	49.95
5210	27.21	-5.65	1.06	-1.09	11.26	15.951	1.06	-18.76	6.72	30	50.88	50.49
5230	25.52	-5.93	-0.04	-2.19	10.708	14.814	-0.04	-18.06	5.89	30	50.42	50.08
5250	27.88	-5.55	-0.06	-2.21	11.756	16.128	-0.06	-17	5.49	90	51.02	50.72
5270	27.14	-5.66	-0.05	-2.2	11.489	15.648	-0.05	-18.8	5.61	120	50.85	50.6
5290	27.26	-5.64	0.01	-2.14	11.368	15.893	0.01	-19.89	5.65	30	51.34	51.12
5310	24.52	-6.11	-0.48	-2.63	9.944	14.571	-0.48	-22.94	5.63	30	50.44	50.36
5330	26.19	-5.82	-0.42	-2.57	10.554	15.635	-0.42	-20.39	5.4	30	51.08	51.01
5350	29.47	-5.31	-0.34	-2.49	11.81	17.656	-0.34	-17.62	4.96	30	51.02	51.01
5370	30.67	-5.13	-0.22	-2.37	12.033	18.634	-0.22	-18.9	4.91	30	50.91	50.95
5390	30.02	-5.23	0.15	-2	11.558	18.461	0.15	-17.52	5.38	30	50.46	50.43
5410	36.24	-4.41	1.67	-0.48	13.873	22.367	1.67	-19.73	6.08	0	51.18	51.09
5430	35.59	-4.49	2.13	-0.02	13.693	21.9	2.13	-16.35	6.62	0	50.69	50.7
5450	39.9	-3.99	2.88	0.73	15.48	24.417	2.88	-15.36	6.87	30	50.71	50.85
5470	38.93	-4.1	2.75	0.6	15.305	23.629	2.75	-15.86	6.85	30	50.93	50.83
5490	37.68	-4.24	2.72	0.57	14.761	22.919	2.72	-15.49	6.96	30	50.92	50.79
5510	39.3	-4.06	2.78	0.63	15.44	23.864	2.78	-17.01	6.84	30	51.18	51.16
5530	40.79	-3.89	2.42	0.27	16.393	24.398	2.42	-19.72	6.31	60	51.44	51.3
5550	45.88	-3.38	2.25	0.1	19.041	26.837	2.25	-19.14	5.64	90	51.89	51.76
5570	39.94	-3.99	1.52	-0.63	16.755	23.188	1.52	-20.52	5.51	90	51.42	51.33
5590	40.1	-3.97	1.52	-0.63	16.882	23.22	1.52	-23.72	5.49	90	51.71	51.76
5610	35.49	-4.5	0.79	-1.36	14.934	20.554	0.79	-22.94	5.29	30	51.17	51.22
5630	39.87	-3.99	1.14	-1.01	16.826	23.047	1.14	-19.58	5.13	30	51.78	51.77
5650	35.85	-4.45	0.86	-1.29	14.802	21.049	0.86	-17.53	5.31	30	51.47	51.55
5670	38.15	-4.19	1.39	-0.76	15.099	23.049	1.39	-14.9	5.58	60	52.12	52.28
5690	35.08	-4.55	1.05	-1.1	13.409	21.671	1.05	-13.29	5.6	30	52.12	52.25
5710	37.26	-4.29	0.82	-1.33	14.015	23.246	0.82	-17.16	5.11	30	51.95	52.05
5730	40.6	-3.91	0.79	-1.36	15.112	25.487	0.79	-18.9	4.7	30	51.59	51.69
5750	37.44	-4.27	1.25	-0.9	13.762	23.683	1.25	-19.29	5.52	90	51.12	51.15
5770	38.06	-4.2	1.92	-0.23	13.965	24.091	1.92	-20.74	6.12	60	51.02	51.06
5790	34.1	-4.67	1.75	-0.4	12.519	21.583	1.75	-18.85	6.43	150	51.08	51.16
5810	33.64	-4.73	1.67	-0.48	12.139	21.502	1.67	-17.51	6.4	150	51.36	51.43
5830	31.35	-5.04	1.31	-0.84	11.086	20.266	1.31	-19.69	6.34	120	51.65	51.66
5850	29.79	-5.26	1.04	-1.11	10.398	19.393	1.04	-20.32	6.3	120	51.88	52.05

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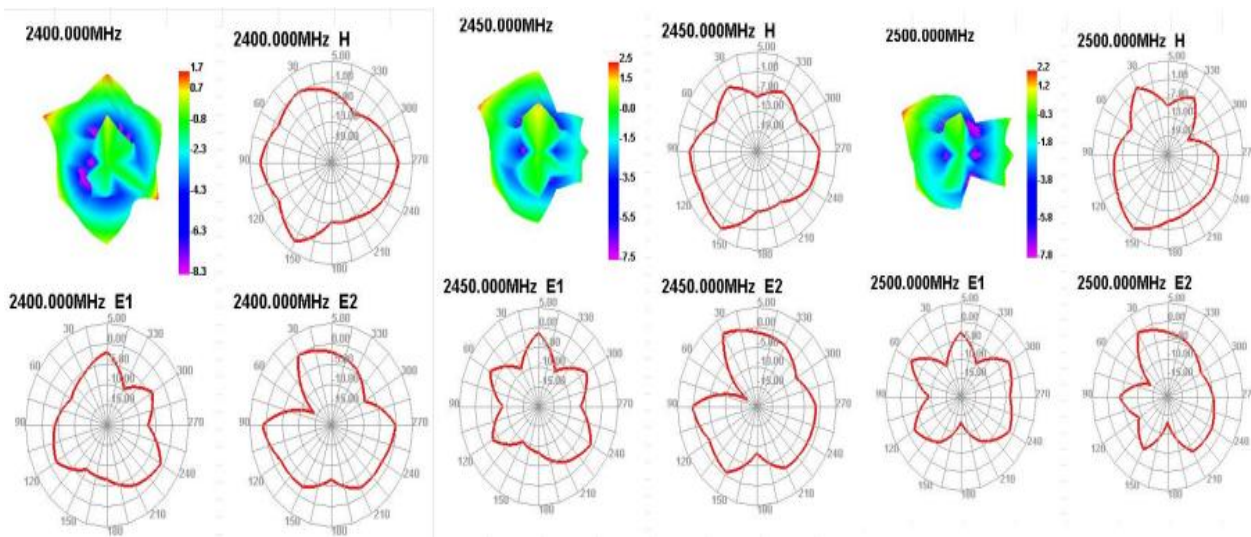


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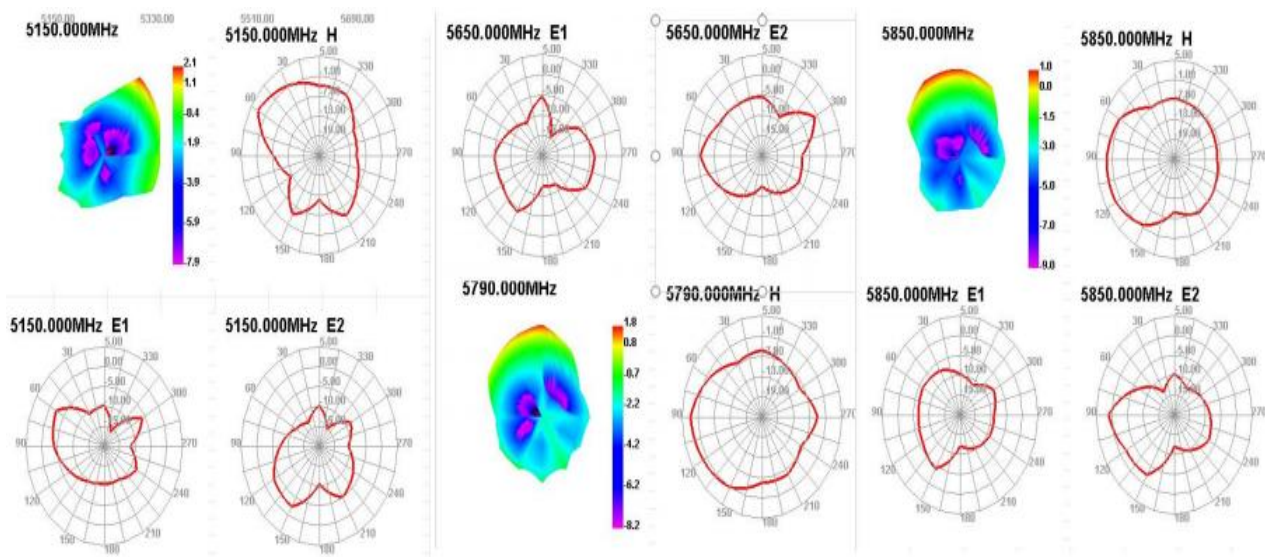
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Radiation Pattern(2.4G)



Radiation Pattern(5G)



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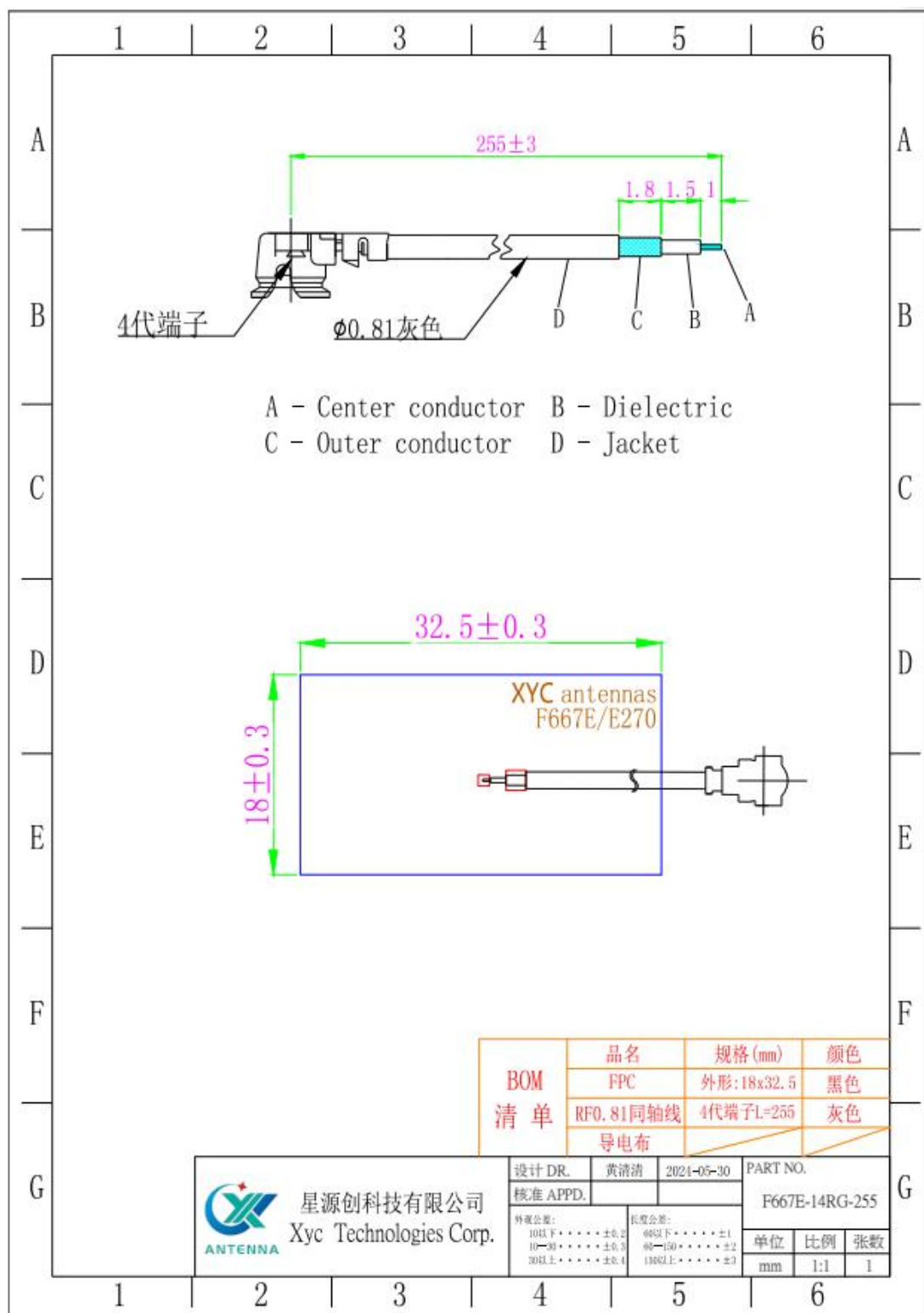
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Antenna Assembly



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